



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/685,150

10/14/2003

EikFun Khor

STL11368

4802

7590

03/08/2005

David K. Lucente, Seagate Technology LLC  
Intellectual Property-COL2LGL  
389 Disc Drive  
Longmont, CO 80503

EXAMINER

SNIEZEK, ANDREW L

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/685,150

Applicant(s)

KHOR ET AL.

Examiner

Andrew L. Snizek

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-22 is/are allowed.
- 6) ☒ Claim(s) 1,5-12,14,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 2-4,13,15 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/14/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement filed 10/14/03 has been considered.

### *Drawings*

2. The drawings filed 10/14/03 are acceptable to the examiner.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 5, 8-12, 14 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Chainer et al. (US006603627B1).

Re claim 1: Chainer et al. teaches a method that includes positioning a data surface adjacent a head (achieved by structure in figure 1) and determines a track range based on several lateral positions while urging the actuator against a stop (operation of figure 3).

Re claim 5: Satisfied by Chainer et al. since stop limits travel of head and therefore the extent of reading of the tracks.

Re claim 8: The claimed another surface's track range is deemed satisfied when a second disk is used with the method taught by Chainer et al.

Art Unit: 2651

Re claim 9: See figure 3.

Re claim 10: Chainer et al. teaches a method of urging an actuator against a stop while identifying several tracks (figure 3).

Re claim 11: Clearly the arrangement of Chainer et al. can't read beyond the range head is allowed to travel due to the stop.

Re claim 12: The most extreme track is satisfied due to head travel limited by the stop.

Re claim 14: The range limitation is satisfied due to head travel limited by the stop.

Re claim 16: See structure of figure 1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2651

7. Claims 6, 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chainer et al. in view of Settje et al. (US 20050041321A1).

The teaching of Chainer et al. is discussed above and incorporated herein. Claim 6 additionally sets forth a guard band which although not taught by Chainer et al. is taught by Settje et al. (for example figures 5 and 6, areas 506, 514) to insure placement of first and last physical cylinders. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Settje et al. in the arrangement of Chainer et al. to insure placements of first and last physical cylinders that can be read. The claimed known mechanical tolerance as set forth in claim 7 is satisfied by the mechanical problems such as head traveling to close to spindle, paragraph [0033] as discussed by Settje et al. and would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate such a feature in the arrangement of Chainer et al. to take into considerations the physical limitations of the device. The use of guard bands as set forth in claim 17 is satisfied by Settje et al. (506, 514) and would have been obvious to incorporate in Chainer et al. for reasons given with respect to claim 6, above.

***Allowable Subject Matter***

8. Claims 19-22 are allowed.

9. Claims 2/1, 3/1, 4/1, 13/10, 15/10 and 18/10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2651

10. The following is a statement of reasons for the indication of allowable subject matter: The device as set forth in claim 19 that includes a stop that defines a limit of a head range of motion such that several tracks are only partly accessible along with a controller that designates a guard band that includes several partly accessible tracks is neither taught by nor an obvious variation of the art of record.

The claimed method as set forth in claim 2/1 that further includes the steps (a1) and (a2) when determining a track range when urging the actuator against a stop is neither taught by nor an obvious variation of the art of record.

The claimed method as set forth in claim 3/1 and 15/10 each respectively including the additional step (a1) when determining a track range (claim 1) when urging the actuator against a stop or identifying each of several tracks (claim 10) when urging the actuator against a stop is neither taught by nor an obvious variation of the art of record.

The claimed method as set forth in claims 4/1 and 18/10, each respectively including the step (a1) when determining a track range (claim 1) when urging the actuator against a stop or identifying each of several tracks (claim 10) when urging the actuator against a stop is neither taught by nor an obvious variation of the art of record.

The claimed method as set forth in claim 13/10 that uses the track identifications to estimate an offset between a center of the several tracks and a center of rotation of the several tracks is neither taught by nor an obvious variation of the art of record.

### ***Conclusion***

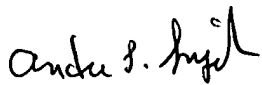
Art Unit: 2651

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US006614614B1 is cited showing a method and apparatus used for writing servo information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone number is 703-308-1602. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Andrew L. Sniezek  
Primary Examiner  
Art Unit 2651

A.L.S.  
3/3/05